

PATENT COOPERATION TREATY

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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 25 April 2001 (25.04.01)	
International application No. PCT/US00/17842	Applicant's or agent's file reference 18623-1344PC
International filing date (day/month/year) 28 June 2000 (28.06.00)	Priority date (day/month/year) 29 June 1999 (29.06.99)
Applicant SETTE, Alessandro et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:26 January 2001 (26.01.01)☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer S. Mafla Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 01 NOV 2001

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Applicant's or agent's file reference 18623-1344PC	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/17842	International filing date (day/month/year) 28 JUNE 2000	Priority date (day/month/year) 29 JUNE 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): A61K 38/04, 38/08, 38/10; A01N 63/00 and US Cl.: 514/2,14,15,16; 424/93.71		
Applicant EPIMMUNE, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 26 JANUARY 2001	Date of completion of this report 17 SEPTEMBER 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer <i>Ron Schwadron</i> RON SCHWADRON
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/17842

I. Basis of the report1. With regard to the **elements** of the international application: *☐ the international application as originally filed☒ the description:pages 1-40 , as originally filedpages 41-54 , filed with the demandpages NONE , filed with the letter of _____☒ the claims:pages 55-56 , as originally filedpages NONE , as amended (together with any statement) under Article 19pages NONE , filed with the demandpages NONE , filed with the letter of _____☒ the drawings:pages NONE , as originally filedpages NONE , filed with the demandpages NONE , filed with the letter of _____☒ the sequence listing part of the description:pages NONE , as originally filedpages NONE , filed with the demandpages NONE , filed with the letter of _____2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/17842

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)

Claims 2-14

YES

Claims 1

NO

Inventive Step (IS)

Claims none

YES

Claims 1-14

NO

Industrial Applicability (IA)

Claims 1-14

YES

Claims NONE

NO

2. citations and explanations (Rule 70.7)

Claim 1 lacks novelty under PCT Article 33(2) as being anticipated by Kondo et al.

Kondo et al. teach a peptide encompassed by that recited in claim 1 (eg. TYSTYGKFL, see Table 1). Kondo et al. teach said peptide in a buffer (eg. assay media, see materials and methods).

Claims 2-14 lack an inventive step under PCT Article 33(3) as being obvious over Kondo et al. in view of Tsai et al. Kondo et al. teach a peptide encompassed by that recited in claim 1 (eg. TYSTYGKFL, see Table 1). Kondo et al. teach said peptide in a buffer (eg. assay media, see materials and methods). Said peptide is a CTL epitope. Tsai et al. teach compositions containing multiple copies of a CTL epitope (see page 25, last paragraph). Tsai et al. teach conjugates of said peptides (eg. wherein conjugates would be made using a linker). Tsai et al. teach CTL epitope/DR conjugates (see page 26, last paragraph). Tsai et al. teach that the peptide/liposome composition (see page 25). Tsai et al. teach CTL peptide/lipid conjugates (see page 27, first incomplete paragraph). Tsai et al. teach that the peptide can contain one or more epitopes (eg. a homopolymer) (see page 25, last paragraph). Tsai et al. teach a CTL peptide/APC composition (see claim 1). Tsai et al. teach that the APC is a dendritic cell (see claim 2). Tsai et al. teach the peptide VVLGVVFGI (see Table 14) and that V can be substituted for I (see page 16). Tsai et al. teach the method of claim 14 using a CTL peptide (see claim 11). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have created the claimed inventions because Tsai et al. teach the claimed inventions except for use of a peptide as per recited in the claims and Kondo et al. teach such a peptide.

----- NEW CITATIONS -----
NONE

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/17842

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 38/04, 38/08, 38/10; A01N 63/00

US CL : 514/2,14,15,16; 424/93.71

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/2,14,15,16; 424/93.71

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

MEDLINE, BIOSIS, EMBASE, CHEM ABS, WEST 2.0, search terms: author names, hcv, hla a24

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KONDO et al. Prominent Roles of Secondary anchor Residues in Peptide Binding to HLA-A24 Human Class I Molecules. Journal of Immunology. 1995, Vol. 155, pages 4307-4312, see entire document.	1-14
Y	WO 98/33888 A1 (TSAI et al.) 06 August 1998, see entire document.	1-14

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*A* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

02 AUGUST 2000

Date of mailing of the international search report

06 SEP 2000

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